Official Draft Public Notice Version – March 12, 2015
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FACT SHEET
CANYON FUEL COMPANY, LLC
SKYLINE MINE
MAJOR INDUSTRIAL RENEWAL PERMIT
UPDES PERMIT No. UT0023540

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DESCRIPTION OF FACILITY AND DISCHARGE

The Canyon Fuel Company's Skyline Mine (Skyline) is an active underground coal mine operation with *Standard Industrial Classification 1222*, for *bituminous underground coal mining operations*. The facility is located approximately 8 miles southwest of Scofield, Utah along State Route 264 in Carbon County. It currently has four permitted discharge points (Outfalls 001, 002, 003, & 004). Outfall 001, which discharges to Eccles Creek, is comprised of both the continuous mine water discharges, as well as any surface water runoff directed to the sedimentation pond from the main facility. Outfall 002 is from a sedimentation pond, which collects surface water runoff from the separate coal load out facility located at the intersection of State Routes 264 & 96 and discharges intermittently to Eccles Creek during pond maintenance, precipitation and/or snow melting events. Outfall 003 is from a sedimentation pond located at the off site waste rock disposal area near Scofield and has not discharged to date and is not expected to discharge due to its size. If discharge were to occur it would go to UP Canyon Creek, tributary to Mud Creek and Scofield Reservoir. Outfall 004 is from a sediment pond that can contain both surface water runoff from the Winter Quarters Canyon ventilation shaft facility, as well as potentially some of the mine water normally discharged via Outfall 001. Outfall 004 discharges to Winter Quarters Canyon streambed, also tributary to Mud Creek and Scofield Reservoir.

RECEIVING WATERS AND STREAM CLASSIFICATIONS

As taken from *Utah Administrative Code (UAC) R317-2-13.1.b*, the receiving waters of Eccles Creek, UP Canyon Creek and Winter Quarters Canyon are classified as follows:

Class 1C - protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.

Class 2B - protected for secondary contact recreation such as boating, wading or similar uses.

Class 3A - protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 - protected for agricultural uses including irrigation of crops and stock watering.

DISCHARGE MONITORING RESULTS

The discharge monitoring results (DMRs) for the past 5 years were reviewed. One effluent limitation exceedance occurred since the last permit renewal. The concentration of oil and grease was measured at 12 mg/L at Discharge 001 during May of 2013.

BASIS FOR EFFLUENT LIMITATIONS

In accordance with regulations promulgated in *40 Code of Federal Regulations (CFR) Part 122.44* and in *Utah Administrative Code (UAC) R317-8-4.2*, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (*UAC R317-1-3.2*) or Utah Water Quality Standards (*UAC R317-2*). In cases where multiple limits have been developed, those that are more stringent apply. In cases where no limits have been developed, Best Professional Judgment (BPJ) may be used where applicable. "Best Professional Judgment" refers to a discretionary, best professional decision made by the permit writer based upon precedent, prevailing regulatory standards or other relevant information.

The following is a list of the basis for effluent limitations:

1) Since the Skyline discharge meets the EPA definition of "alkaline mine drainage," the permittee is subject to the technology based effluent limitations in *40 CFR Part 434.45*. Applicable technology based limits included in the permit are as follows:

    a. Total suspended solids (TSS) daily maximum limit of 70 mg/L.

    b. For discharges composed of surface water or mine water commingled with surface water, *40 CFR Part 434.63* allows alternate effluent limits to be applied when discharges result from specific runoff events, detailed below and in the permit. Skyline has the burden of proof that the described runoff event occurred as described in the permit.

        i. For runoff events (rainfall or snowmelt) less than or equal to a 10-year 24-hour precipitation event, settleable solids may be substituted for TSS and shall be limited to 0.5 milliliters per liter (ml/L). All other effluent limitations must be achieved concurrently, as described in the permit.

2) TSS 30-day and 7-day averages are based on Utah Secondary Treatment Standards.

3) Daily minimum and daily maximum limitations on pH are derived from Utah Secondary Treatment Standards and Water Quality Standards.

4) The dissolved oxygen daily minimum limitation is based upon the State Water Quality Standard of 5.0 mg/L for dissolved oxygen (*UAC R317-2 Table 2.14.2*) and the WLA limitation of 5.0 mg/L for dissolved oxygen.

5) Total dissolved solids (TDS) are limited by both mass loading and concentration requirements as described below:

a. Since discharges from Skyline eventually reach the Colorado River, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in *UAC R317-2-4* to further control salinity in the Utah portion of the Colorado River Basin. On February 28, 1977 the Forum produced the *"Policy For Implementation of Colorado River Salinity Standards Through the NPDES Permit Program"* (Policy), with the most current subsequent triennial revision dated October 2008. Based on Forum Policy, provisions have previously been made for salinity-offset projects to account for any TDS loading in excess of the permit requirement. Salinity-offset provisions have once again been included in Skyline's permit as the facility remains current on the requirements included therein to account for all excess TDS loading. These provisions and requirements, as described further in both the permit and in a latter section of this fact sheet statement of basis, will remain in Skyline's renewal permit as appropriate.

b. Previous Skyline permit provisions included TDS concentrations that were limited by the resulting Waste Load Analysis (WLA), which is described further in the following section. The previous limit had been 1,200 mg/L. Based on the current WLA, each outfall shall have a TDS concentration limitation not to exceed 1,203 mg/L. The State Water Quality Standard for TDS is 1,200 mg/L and in the permitting authorities BPJ, this more stringent limitation has been included in the permit renewal. A review of the past 5 years of discharge data indicates that Skyline should be able to comply with this more stringent limitation.

6) The iron limitation is based upon the State Water Quality Standard of 1.0 mg/L for dissolved iron (*UAC R317-2 Table 2.14.2*) and the WLA limitation of 1.0 mg/L for total recoverable iron. Total recoverable iron is a more stringent limit than dissolved iron. Therefore, the existing permit limit of 1.0 mg/L for total recoverable iron will remain in the renewal permit and shall apply to each of the discharge points.

7) Oil and Grease concentrations are limited to 10 mg/L by BPJ to be consistent with other industrial facilities statewide.

WASTE LOAD ANALYSIS AND ANTIDEGRADATION REVIEW

Effluent limitations may also be derived using a Waste Load Analysis (WLA), which is appended to this statement of basis as ADDENDUM. The WLA incorporates Secondary Treatment Standards, Water Quality Standards, Antidegradation Reviews (ADR), as appropriate and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. During this UPDES renewal permit development, a WLA and ADR were performed. An ADR Level I review was performed and concluded that an ADR Level II review was required because the receiving stream is Class 1C. The Level II ADR evaluated the historic maximum flow of 16.848 mgd and concluded Skyline Mine should continue participation in the Colorado Salinity Offset program. In addition, the WLA indicates that the effluent limitations should be

sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters. The discharge was evaluated and determined not to cause a violation of State Water Quality Standards in downstream receiving waters.

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EFFLUENT LIMITS & SELF-MONITORING & REPORTING REQUIREMENTS

Skyline is expected to be able to continue complying with the following effluent limitations and self-monitoring and reporting requirements included in the permit and as described below.

Parameter, Units	Effluent Limitations a/			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
Total Effluent Flow, MGD, b/	Report			Report
Total Iron, mg/L				1.0
Total Suspended Solids (TSS), mg/L	25	35		70
Total Dissolved Solids (TDS), mg/L, c/	Report			1,200
Dissolved Oxygen, mg/L			5.0	
pH, Standard Units(SU)			6.5	9.0
Oil & Grease, mg/L, d/				10
Whole Effluent Toxicity (WET), Chronic Biomonitoring				Pass, IC_{25} > 99% effluent

NA – Not Applicable; mg/L – milligrams per liter; MGD – million gallons per day

Discharge monitoring report (DMR) forms shall be submitted on a monthly basis and are due on or before the 28th day of the month after each monitoring period. For example, the DMR form for February would be due by March 28th. A review of the past 5 years of DMR data demonstrates Skyline should be able to continue complying with the permit provisions herein.

Listed below are the permit parameters and the associated sampling frequency, type of sample and required units, followed by the applicable permit footnotes as appropriate.

Self-Monitoring and Reporting Requirements a/			
Parameter	Frequency	Sample Type	Units
Total Flow, b/	Continuous	Recorder	MGD
Total Iron	Twice Monthly	Grab	mg/L
TSS	Weekly	Grab	mg/L
TDS, c/	Twice Monthly	Grab	mg/L & tons/day
pH	Weekly	Grab	SU
Oil & Grease, d/	Weekly, Twice Monthly	Grab, Visual	mg/L, Yes/No
Dissolved Oxygen	Monthly	Grab	mg/L
Chronic WET Biomonitoring	Quarterly	Composite	Pass/Fail

Permit Footnote Conditions:

There shall be no visible sheen or floating solids or visible foam in other than trace amounts upon any discharges and there shall be no discharge of any sanitary wastes at any time.

a/ See Definitions, *Part I.A* of the permit, for definition of terms.

b/ If the rate of discharge is controlled, such as from intermittent discharging outfalls, the rate and duration of discharge shall be reported. Flow measurements of effluent volumes from all outfalls shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

c/ The TDS concentration from each of the outfalls shall not exceed 1,200 mg/L as a daily maximum limit. No tons per day loading limit will be applied if the concentration of TDS in the discharge is equal to or less than 500 mg/L as a thirty-day average. However, if the 30-day average concentration exceeds 500 mg/L, then the permittee cannot discharge more than 7.1 tons per day as a sum from all discharge points. Upon previous determinations by the Director that the permittee is not able to meet the 500 mg/L 30-day average or the 7.1 tons per day loading limit, the permittee is required to continue to participate in and/or fund a salinity offset project to include the TDS offset credits as appropriate.

The salinity-offset project shall include TDS credits on a ton-for-ton basis for which the permittee is over the TDS loading limit. The tonnage reduction from the offset project must be calculated by a method similar to one used by the NRCS, Colorado River Basin Salinity Control Forum, or other applicable agency.

If the permittee will be participating in the construction and implementation of a new salinity-offset project, then a project description and implementation schedule shall be submitted to the Director at least six (6) months prior to the implementation date of the project, which will then be reviewed for approval. The salinity offset project description and implementation schedule must be approved by the Director and shall be appended to this permit.

If the permittee will be funding any additional salinity-offset projects through third parties, the permittee shall provide satisfactory evidence to the Executive Secretary that the required funds have been deposited to the third party within six (6) months of project approval by the Director. A monitoring and adjustment plan to track the TDS credits shall continue to be submitted to the Director for each monthly monitoring period during the life of this permit. Any changes to the monitoring and adjustment plan must be approved by the Director and upon approval shall be appended to this permit.

d/ Weekly oil & grease samples shall be conducted at outfall 001. At outfalls 002, 003 and 004, oil & grease monitoring shall initially be a visual test conducted at least twice per month. If any oil and/or grease sheens are observed visually, or there is any other reason to believe that oil and/or grease may be present in the

discharge, then a grab sample of the effluent must be immediately taken and this sample shall not exceed 10 mg/L.

SIGNIFICANT CHANGES

Three significant changes were made during renewal. Dissolved oxygen monitoring was increased to monthly with the inclusion of a 5.0 mg/L daily minimum effluent limitation and total phosphorous monitoring was removed. All other permit limitations remain unchanged. Last, Skyline Mine's permit was changed from a minor to a major due to evaluation of historic flows.

PRETREATMENT REQUIREMENTS

This facility does not discharge process wastewater to a sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable federal general pretreatment regulations promulgated, found in 40 CFR 403, the state's pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the State of Utah's "*UPDES Permitting and Enforcement Guidance Document for Whole Effluent Toxicity (WET) Control (Biomonitoring), Division of Water Quality, March 1999.*" Authority to require effluent biomonitoring is provided in *UAC R317-8, Utah Pollutant Discharge Elimination System and UAC R317-2, Water Quality Standards.*

During the past five years, Skyline has been conducting quarterly chronic WET testing of their mine water discharge via Outfall 001 utilizing the test species, *Ceriodaphnia dubia* (water flea) and *Pimephales promelas* (fathead minnow) as appropriate. A review of the WET testing reports reveals that Skyline has had no chronic WET failures during the previous 26 testing events. Due to discharging to a category Class 1C water and based upon these facts, Skyline shall continue quarterly chronic WET testing, alternating the test species as appropriate. Chronic WET testing provisions are included in the permit as well as the toxicity limitation re-opener provision, which allows for the modification of the permit at any time to include WET limitations and/or increased WET monitoring, should additional information indicate the presence of toxicity in the discharge.

STORMWATER REQUIREMENTS

Storm water on mining sites is regulated under *40 CFR 434* and under State and Federal storm water regulations (*UAC R317-8-3.9 and 40 CFR 122.26,* respectively). Regulations under *40 CFR 434* are for active mining areas, and temporarily inactive mining areas. Skyline is an active mine site and therefore, required to be covered under a storm water permit. Skyline has

previously received coverage under the General Multi-Sector Storm Water Permit No. UTR000000 and has developed a storm water pollution prevention plan pursuant to the permit as required. This plan is required to be on-site and made available for review upon request. Accordingly, similar storm water permit provisions have been included in this individual permit to replace the provisions of the general permit in an on-going effort to stream line the UPDES permitting program. Therefore, coverage under the general storm water permit may be terminated by Skyline upon the effective date of this individual permit.

PERMIT DURATION

As stated in *UAC R317-8-5.1(1)*, UPDES permits shall be effective for a fixed term not to exceed five (5) years.

Drafted by:

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PUBLIC COMMENT

Began: March 13, 2015
Ended: April 13, 2015
Public Noticed in the XXXXXX.

During the public comment period provided under R317-8-6.5, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in R317-8-6.12.

Additional information will be included in this section based on comments received.

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